

## **National Hospital Quality Measure Data Transmission**

### **Introduction**

This section of the manual is provided to highlight the unique data transmission requirements for national hospital quality measure data for the Joint Commission compared to the Centers for Medicare & Medicaid Services (CMS) and the QIO Clinical Warehouse. Alignment provided a unified set of requirements for the data abstraction and data collection; however, use of the data and the reporting needs have resulted in unique data submission requirements for the Joint Commission and CMS.

This section is divided into two parts: Joint Commission National Hospital Quality Measure Data Transmission and CMS National Hospital Quality Measure Data Transmission. The Joint Commission section provides information related to the transmission of national hospital quality measure data to The Joint Commission. This section is to be used in conjunction with the *ORYX® Technical Implementation Guide* for the details regarding submitting ORYX data to the Joint Commission.

The CMS Transmission section provides the user with the data standards required for submission to the QIO Clinical Warehouse. This section includes the XML file layout and a list of warehouse import edits. This sub-section can be used in conjunction with the CMS Abstraction & Reporting Tool (CART) User Guide for a complete description of the CMS submission requirements.

## Joint Commission National Hospital Quality Measure Data Transmission

The transmission of national hospital quality measure data to the Joint Commission will follow the same data transmission schedule, and use the same basic file formats that are currently used to submit ORYX data to the Joint Commission. Measurement systems, therefore, will continue to reference the most current version of the *ORYX Technical Implementation Guide* for instructions and data element definitions that pertain to the transmission of both ORYX data *and* national hospital quality measure data. The most significant changes related to the transmission of national hospital quality measure data are listed here, but this is not an exhaustive list. Please refer to the *ORYX Technical Implementation Guide* for a list of ALL changes related to both ORYX and national hospital quality measure data transmission.

1. The following data elements are required for national hospital quality measures and must be included in the health care organization (HCO)-level data transmission file. These will not be used for traditional ORYX data. The data elements include:

- *Number of Cases with Missing or Invalid Population Data*
- *Number of Cases with Missing or Invalid Numerator Data*
- *Number of Cases with Missing or Invalid Risk Adjustment Data*
- *ICD Population Size*
- *Sample*

Refer to the “HCO-Level Data Elements” and “Electronic Data Interchange” sections of the *ORYX Technical Implementation Guide* for a complete set of definitions, allowable values and edits related to these data elements.

2. **Stratified national hospital quality measures:** Although a stratified measure will often be referred to as a single measure (such as measure SIP-1), the overall rate and the individual strata measures will actually be transmitted to the Joint Commission as a series of measures, using a number of pre-determined ID numbers.
3. **Risk Adjustment:** The Joint Commission will provide measurement systems with risk adjustment model information on a quarterly basis for the national hospital quality measures that require risk adjustment. There are four such measures (AMI-9, PR-1, PR-2, and PR-3) in the initial set of national hospital quality measures. Measurement systems must use risk model information to apply to their patient-level data and generate risk adjustment data for submission to the Joint Commission as a part of HCO-level data elements. Details related to the risk model information file and its usage by measurement systems are provided in the *Risk Adjustment* section of this manual. Additional specifics include:
  - Measurement systems will have access to current national hospital quality measure risk model information file through the Performance Measurement System Extranet Track (PET). Details related to the file description, usages, and a sample of significant risk factors and associated coefficients for the risk-adjusted national hospital quality measures (AMI-9, PR-1, PR-2, and PR-3) are provided in the Risk Adjustment section of this

manual. Measurement systems may use this information to implement and test their own risk adjustment process.

- All listed measurement systems that have passed the Joint Commission’s algorithm verification process for at least one set, will have access to the risk models for the current national hospital quality measure sets.
- National hospital quality measure risk models should not be used for any purposes other than calculating risk-adjusted data elements.
- National hospital quality measure risk models will be available one month prior to the data transmission due date. See Table 1 at the end of this section for the scheduled release dates for national hospital quality measure risk adjustment models.
- For assistance with the national hospital quality measure risk model information, please contact the ORYX statistical support e-mail box at [oryxstat@jcaho.org](mailto:oryxstat@jcaho.org).

In order to keep risk adjustment models current, measurement systems will be required to transmit a sample of patient level data to the Joint Commission for each risk adjusted measure. Refer to the Patient-Level Data Interchange section of the ORYX Technical Implementation Guide for details on transmitting patient level data.

4. **Identifiers used to transmit national hospital quality measure data:** The performance measure identifiers used to transmit national hospital quality data to the Joint Commission are presented in this section since many of the references to these identifiers have been removed from the combined CMS/JCAHO manual. See Table 5 to Table 8 for the identifiers used to transmit national hospital quality measure data to the Joint Commission.
5. **National Comparison Group:** The Joint Commission will provide the measurement systems participating in the ORYX national hospital quality measure initiative with national comparison group data. Measurement systems must use this information to prepare feedback reports for client organizations. Additional details in regard to this process include:
  - Measurement systems will have access to national comparison group data through the PMS Extranet System Track (PET).
  - The Joint Commission will provide the measurement systems participating in the ORYX national hospital quality measures initiative with national comparison group data on a quarterly basis during the annual contract cycle.
  - All listed measurement systems that have passed the Joint Commission’s algorithm verification process for at least one set, will have access to the national comparison group data for all current national hospital quality measures.
  - National comparison group data file will include aggregate data such as mean, median, and standard deviation. See Table 3 at the end of this section for the list of national comparison group data elements and related information. The file format will be comma-delimited (.CSV).
  - Individual data elements in the file will follow the specifications listed in the *Data Dictionary* section of the *ORYX Technical Implementation Guide* with an exception for the data element *Reporting Data Point Qualifier* whose allowable values include:
    - “Q” for quarterly data point; in this case, *Reporting Time Period* may range from 1 (first) to 4 (fourth quarter);

- “Y” for yearly data point; in this case, *Reporting Time Period*=1;
- “M” for monthly data point; in this case, *Reporting Time Period* may range from 1 (January) to 12 (December).

In addition, please note:

- National comparison group data for all measures in the initial set of national hospital quality measures are quarterly data points.
  - The data point qualifier value of “Q” or “Y” (future use) refers to the Joint Commission calculated comparison group for national hospital quality measures.
  - Measurement systems should use “*Overall Observed Rate*” (or Overall Observed Value for continuous variable measure) in the national comparison group file as the comparative norm (i.e., expected rate/value). For risk-adjusted national hospital quality measures, systems should use individual organizations’ “*risk adjusted rates*” (that are calculated using the Joint Commission’s risk adjustment models) as the comparative norm in the comparison analysis.
  - National ORYX comparison group data must not be used for any purposes other than creating national hospital quality measure feedback reports for client organizations.
  - The national hospital quality measure national comparison group data will be available to systems one month after the HCO-level data transmission due date. Using these data, measurement systems must provide feedback reports to client organizations by the date specified in Table 2.
  - For assistance with the national hospital quality measure national comparison group, please contact the ORYX statistical support e-mail box at [oryxstat@jcaho.org](mailto:oryxstat@jcaho.org).
6. **ORYX data re-transmission:** The Joint Commission is acknowledging that, in some instances, it may be appropriate to allow ORYX data to be updated. We are interested in assuring the best possible data quality, especially in light of public reporting. Toward that end, we routinely WILL be permitting re-transmission of up to seven quarters of national hospital quality (core) measures and non-core measure data with each regularly scheduled transmission deadline, for the purposes of updating data for the ORYX Performance Measure Reports, national comparison group data, and the health care organization (HCO) Quality Report postings. These re-transmitted data may be inclusive of updated data previously submitted and/or data that may have been erroneously omitted. If your system plans to re-transmit, please be aware of the following:
- Performance measurement systems (PMSs) should convey their interest to re-transmit as soon as possible by e-mailing the PMS support e-mail box at [oryxpms@jcaho.org](mailto:oryxpms@jcaho.org). In the e-mail, PMS's should provide: (1) sufficient explanation of why there is a need to re-transmit, (2) quarters for which data will be transmitted, (3) an estimated count of unique HCOs for which data will be transmitted; individual HCO names/IDs are not necessary. This e-mail serves to notify us that we should manually move the file(s) to the production database for quarter-end processing. Given the expired date ranges, upon re-transmission, please disregard any error report message indicating an expired date range was submitted.
  - Re-transmissions should consist of no more than 7 quarters of updated national hospital quality (core) measures and non-core measure data due to the rolling quarters of the ORYX Performance Measure Reports that display up to 24 months of data.

- PMSs are encouraged to use the latest risk adjustment model and back-apply to previous data whenever possible. When necessary, use the risk model that corresponds to the quarter of data being re-transmitted; never use a model that is older than the data being risk adjusted.
- Re-transmissions should be submitted in the same fashion as regular quarterly transmissions, i.e., through the Performance Measurement System Extranet Track (PET) using the existing production X12 file format. One file per quarter is the preferred format. As we move to automate the re-transmission process in 2005, there may be an allowable value addition for the data element test indicator (currently ISA-15 field) that today contains a “t” for trial or “p” for production, to include “r” for re-transmission.
- For the remaining portion of the 2004 Performance Measurement System Agreement period, usual transmission fees (i.e., core: [\$39/per set \* number of quarters transmitted\*HCO count for the set] and non-core: [\$13/per measure \* number of quarters transmitted\*HCO count for that measure]) will apply for all re-transmission scenarios. In addition, a \$3,500 handling fee (a single quarterly charge invoiced to re-transmitting vendors that is not related to the volume or frequency of re-transmissions made during the quarter) will be applied for each re-transmission of ORYX data that is necessary due to PMS error. For all single HCO errors requiring re-transmission, usual transmission fees apply as noted above. Later this year, refer to your 2005 Performance Measurement System Agreement for any updates that may be made to the re-transmission pricing structure.
- All re-transmitted HCO-level data contained in the file(s) will be processed and overwrite previously received data.
- It is important to note, these re-transmitted data will refresh the following quarter’s Quality Report posting, the ORYX Performance Measure Reports sent to HCOs prior to survey and update the national comparison group rates. Example: All re-transmitted data received from 8/1/04 through 10/31/04 (2Q04 transmission deadline) will be processed with 2Q04 data at quarter-end, and refresh Quality Reports posted January 2005.
- It is the responsibility of the PMS to notify HCO clients that updated data were re-transmitted to the Joint Commission, and that the subsequent Quality Report posting and future ORYX Performance Measure Reports will reflect these data.

NOTE: One key component of this timeline is that we do not allow for a vendor to update for the current Quality Report release period. Instead, the re-transmitted data will be processed with regularly scheduled transmission deadline for the following Quality Report release. As you can appreciate, there is a fine balance between allowing the HCOs and vendors the proper amount of time for review / re-transmission and ensuring that the data are being displayed publicly in a timely fashion. It is anticipated that the pattern of dates will simply repeat themselves quarter-by-quarter, making it possible for PMSs to incorporate them into their own timelines.

Any PMS inquiries related to the re-transmission of ORYX data should be directed to [oryxpms@jcaho.org](mailto:oryxpms@jcaho.org).

*Note: For additional details on data transmission issues refer to the most current version of the **ORYX Technical Implementation Guide**.*

Table 1. Schedule for National Hospital Quality Measure Risk Model Information File

<b>Data</b>	<b>Risk Models Available For Measurement Systems</b>	<b>Data Due To Joint Commission (Including Risk-Adjusted Data)</b>
1Q04	6/30/04	7/31/04
2Q04	9/30/04	10/31/04
3Q04	12/31/04	1/31/05
4Q04	3/31/05	4/30/05
1Q05	6/30/05	7/31/05
2Q05	9/30/05	10/31/05
3Q05	12/31/05	1/31/06
4Q05	03/31/06	4/30/06

Table 2. Schedule for National Hospital Quality Measure National Comparison Group File

<b>Data</b>	<b>HCO-level Data Due To Joint Commission</b>	<b>CG Data Available For Measurement Systems</b>	<b>Feedback Report Due To Hospitals</b>
1Q04	7/31/04	8/31/04	9/30/04
2Q04	10/31/04	11/30/04	12/31/04
3Q04	1/31/05	2/29/05	3/31/05
4Q04	4/30/05	5/31/05	6/30/05
1Q05	7/31/05	8/31/05	9/30/05
2Q05	10/31/05	11/30/05	12/31/05
3Q05	1/31/06	2/28/06	3/31/06
4Q05	4/30/06	5/31/06	6/30/06

Table 3. National Hospital Quality Measure National Comparison Group File - Layout

<b>Data Element Name</b>	<b>Length</b>	<b>Format Type</b>	<b>Allowable Values</b>	<b>Measure Type</b>
1. Performance Measure Identifier	10	Numeric	JCAHO Assigned	All
2. Reporting Year	4	Numeric	Valid 4-Digit Year	All
3. Reporting Time Period	2	Numeric	1 to 12	All
4. Reporting Data Point Qualifier * The data point qualifier with a value of 'Q' or 'Y' (future use) refers to the Joint Commission calculated comparison group for national hospital quality measures. All ORYX data transmitted from the measurement system to the Joint Commission will continue to be with monthly data points.	2	Alphanumeric	M, Q *, Y *	All
5. Number of Health Care Organizations	6	Numeric	1 to 999,999	All
6. Total Number of Numerator Cases in Comparison Group	15	Decimal Number	0 to 999,999,999.999999	Rate-Based Rate or Ratio
7. Total Number of Denominator Cases in Comparison Group	15	Decimal Number	.000001 to 999,999,999.999999	Rate-Based Rate or Ratio
8. Overall Observed Rate	15	Decimal Number	.000001 to 999,999,999.999999	Rate-Based Rate or Ratio
9. Mean of All Comparison Group Observed Rates	15	Decimal Number	.000001 to 999,999,999.999999	Rate-Based Rate or Ratio
10. Maximum of All Comparison Group Observed Rates	15	Decimal Number	.000001 to 999,999,999.999999	Rate-Based Rate or Ratio
11. Median of All Comparison Group Observed Rates	15	Decimal Number	.000001 to 999,999,999.999999	Rate-Based Rate or Ratio
12. Minimum of All Comparison Group Observed Rates	15	Decimal Number	.000001 to 999,999,999.999999	Rate-Based Rate or Ratio
13. Standard Deviation of All Comparison Group Observed Rates	15	Decimal Number	0.000000 to 999,999,999.999999	Rate-Based Rate or Ratio
14. Total Number of Cases in Comparison Group	15	Numeric	1 to 999,999,999	Continuous
15. Overall Mean Observed Value	15	Decimal Number	-999,999,999.999999 to 999,999,999.999999	Continuous
16. Mean of All Comparison Group Mean Observed Values	15	Decimal Number	-999,999,999.999999 to 999,999,999.999999	Continuous
17. Maximum of All Comparison Group Mean Observed Values	15	Decimal Number	-999,999,999.999999 to 999,999,999.999999	Continuous

18. Median of All Comparison Group Mean Observed Values	15	Decimal Number	-999,999,999.999999 to 999,999,999.999999	Continuous
19. Minimum of All Comparison Group Mean Observed Values	15	Decimal Number	-999,999,999.999999 to 999,999,999.999999	Continuous
20. Standard Deviation of All Comparison Group Observed Values	15	Decimal Number	0 to 999,999,999.999999	Continuous



Table 4. Acute Myocardial Infarction Measures

<b>Performance Measure Identifier (Transmission ID #)</b>	<b>Set Measure ID #</b>	<b>Measure Short Name</b>
14229	<b><u>AMI-1</u></b>	Aspirin at Arrival
14230	<b><u>AMI-2</u></b>	Aspirin Prescribed at Discharge
14231	<b><u>AMI-3</u></b>	ACEI for LVSD
14228	<b><u>AMI-4</u></b>	Adult Smoking Cessation Advice/Counseling
14232	<b><u>AMI-5</u></b>	Beta Blocker Prescribed at Discharge
14234	<b><u>AMI-6</u></b>	Beta Blocker at Arrival
14226	<b><u>AMI-7</u></b>	Mean Time to Thrombolysis
14236	<b><u>AMI-7a</u></b>	Thrombolytic Agent Received Within 30 Minutes of Hospital Arrival
14227	<b><u>AMI-8</u></b>	Mean Time to PCI
14235	<b><u>AMI-8a</u></b>	PCI Received Within 120 Minutes of Hospital Arrival
14233	<b><u>AMI-9</u></b>	Inpatient Mortality

Table 5. Heart Failure Measures

<b>Performance Measure Identifier (Transmission ID #)</b>	<b>Set Measure ID #</b>	<b>Measure Short Name</b>
14335	<b><u>HF-1</u></b>	Discharge Instructions
14336	<b><u>HF-2</u></b>	LVF Assessment
14339	<b><u>HF-3</u></b>	ACEI for LVSD
14337	<b><u>HF-4</u></b>	Adult Smoking Cessation Advice/Counseling

Table 6. Pneumonia Measures

<b>Performance Measure Identifier (Transmission ID #)</b>	<b>Set Measure ID #</b>	<b>Measure Short Name</b>
14441	<b><u>PN-1</u></b>	Oxygenation Assessment
14442	<b><u>PN-2</u></b>	Pneumococcal Vaccination
14443	<b><u>PN-3b</u></b>	Blood Culture Before First Antibiotic
14445	<b><u>PN-4</u></b>	Adult Smoking Cessation Advice/Counseling
14444	<b><u>PN-5</u></b>	Antibiotic Timing (Mean)
14447	<b><u>PN-5a</u></b>	Initial Antibiotic Received Within 8 Hours of Hospital Arrival
14448	<b><u>PN-5b</u></b>	Initial Antibiotic Received Within 4 Hours of Hospital Arrival
14449	<b><u>PN-6a</u></b>	Initial Antibiotic Selection for CAP in Immunocompetant – ICU Patient
14450	<b><u>PN-6b</u></b>	Initial Antibiotic Selection for CAP in Immunocompetant – Non ICU Patient
14451	<b><u>PN-7</u></b>	Influenza Vaccination

Table 7. Pregnancy and Related Conditions Measures

<b>Performance Measure Identifier (Transmission ID #)</b>	<b>Set Measure ID #</b>	<b>Measure Short Name</b>
14547	<b><u>PR-1</u></b>	VBAC
14548	<b><u>PR-2</u></b>	Inpatient Neonatal Mortality
14555	<b><u>PR-3</u></b>	Third or Fourth Degree Laceration

Table 8. Surgery Infection Prevention Measures

<b>Performance Measure Identifier (Transmission ID #)</b>	<b>Set Measure ID #</b>	<b>Measure Short Name</b>
14657	<b><u>SIP-1a</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Overall Rate
14658	<b><u>SIP-1b</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - CABG
14659	<b><u>SIP-1c</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Cardiac Surgery
14660	<b><u>SIP-1d</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Hip Arthroplasty
14661	<b><u>SIP-1e</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Knee Arthroplasty
14662	<b><u>SIP-1f</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Colon Surgery
14663	<b><u>SIP-1g</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Hysterectomy
14664	<b><u>SIP-1h</u></b>	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision - Vascular Surgery
14666	<b><u>SIP-2a</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Overall Rate
14667	<b><u>SIP-2b</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - CABG
14668	<b><u>SIP-2c</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Cardiac Surgery
14669	<b><u>SIP-2d</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Hip Arthroplasty
14670	<b><u>SIP-2e</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Knee Arthroplasty
14671	<b><u>SIP-2f</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Colon Surgery
14672	<b><u>SIP-2g</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Hysterectomy
14673	<b><u>SIP-2h</u></b>	Prophylactic Antibiotic Selection for Surgical Patients - Vascular Surgery
14675	<b><u>SIP-3a</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - Overall Rate
14676	<b><u>SIP-3b</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - CABG

14677	<b><u>SIP-3c</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - Cardiac Surgery
14678	<b><u>SIP-3d</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - Hip Arthroplasty
14679	<b><u>SIP-3e</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - Knee Arthroplasty
14680	<b><u>SIP-3f</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - Colon Surgery
14681	<b><u>SIP-3g</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time - Hysterectomy
14682	<b><u>SIP-3h</u></b>	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time – Vascular Surgery

## **CMS National Hospital Quality Measure Data Transmission**

Please see attached XML file layout specification document.